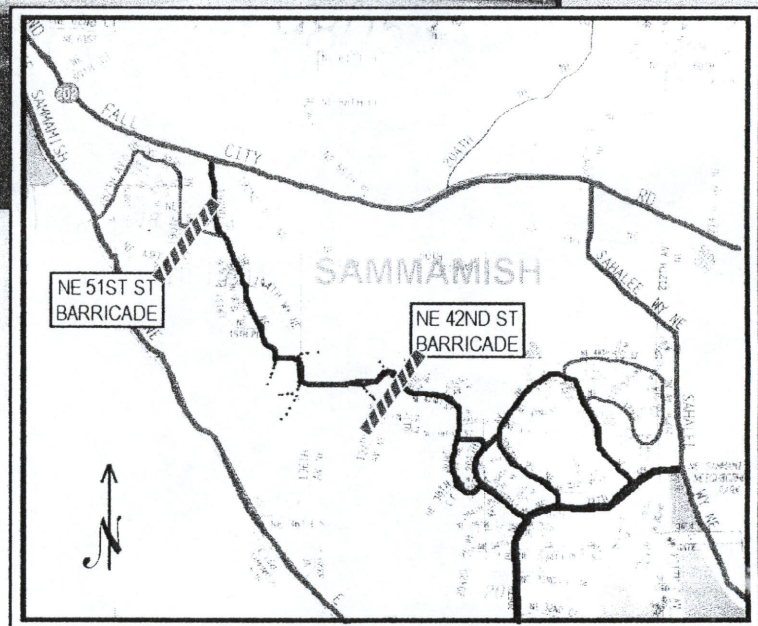




CITY OF SAMMAMISH

NORTHEAST AREA BARRICADE PEDESTRIAN IMPACTS EVALUATION



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Gray & Osborne, Inc.
CONSULTING ENGINEERS

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SECTION 1

OVERVIEW

The purpose of this report is to identify vehicle and pedestrian impacts of barricade removal. Vehicle impacts are addressed in Section 2 (updated November Report) and pedestrian impacts are addressed in Section 3. The November 2001 Report compiled subdivision traffic conditions, October 2001 traffic counts, and reported the findings with potential vehicle impacts of barricade removal. Evaluation of pedestrian traffic impacts utilizing April 2003 traffic counts is reported in Section 3. The combined findings identify potential impacts of barricade removal.

The November 2001 PRELIMINARY DRAFT NE AREA BARRICADES ACCESS EVALUATION summarizes previous subdivision approval traffic evaluation work. Portions of that report are used in the Pedestrian Impact Evaluation. The November 2001 report included comparison of 2001 traffic counts with the 1998 William Popp Weber's Ridge and Chrysallis Estates traffic forecasts for 2003. The traffic model used for the 1998 forecast work extended to NE 16th Street. The southern boundary of traffic that would use the barricaded route would be further south than NE 16th Street. Mr. Popp has concurred with the boundary of traffic using an opened route being further south than NE 16th Street and result in higher volumes than the 1998 projections.

The Pedestrian Impacts Evaluation utilizes traffic information reported in the November 2001 Preliminary Report with April 2003 traffic counts. Pedestrian impacts are evaluated using traffic volumes, speed limits, walking area, pedestrian use, and roadway width. Higher index ratings indicate higher pedestrian traffic exposure and lower ratings indicate lower exposure of pedestrians to traffic. Higher values represent less room to walk, higher traffic volumes, higher speeds, less room for vehicles to maneuver, higher pedestrian volumes, and handicapped, elderly, and/or school children. A sidewalk or delineated 10-foot shoulder results in an index rating of zero. The Pedestrian Rating process is primarily used to prioritize and select where to make walkway improvements including assessing development impacts for pedestrian mitigation needs. Barricade removal may result in higher volumes with potential pedestrian impacts.

Sidewalks exist on both sides of NE 51st Street except for a relatively short distance at the barricade and 190th Place NE (with NE 55th Street). Sidewalks exist on one side of the street in the NE 42nd Street area. The segment ratings are for individual shoulders and are averaged for street segment ratings.

OVERVIEW

The northeast area traffic boundaries are Sahalee Way NE on the east, at least Inglewood Hill Road on the south, the steep hillside east of East Lake Sammamish Parkway on the west, and generally 192nd Drive NE on the north. There are two barricades that close

routes to through traffic. They prevent both cut-through traffic and neighborhood traffic circulation.

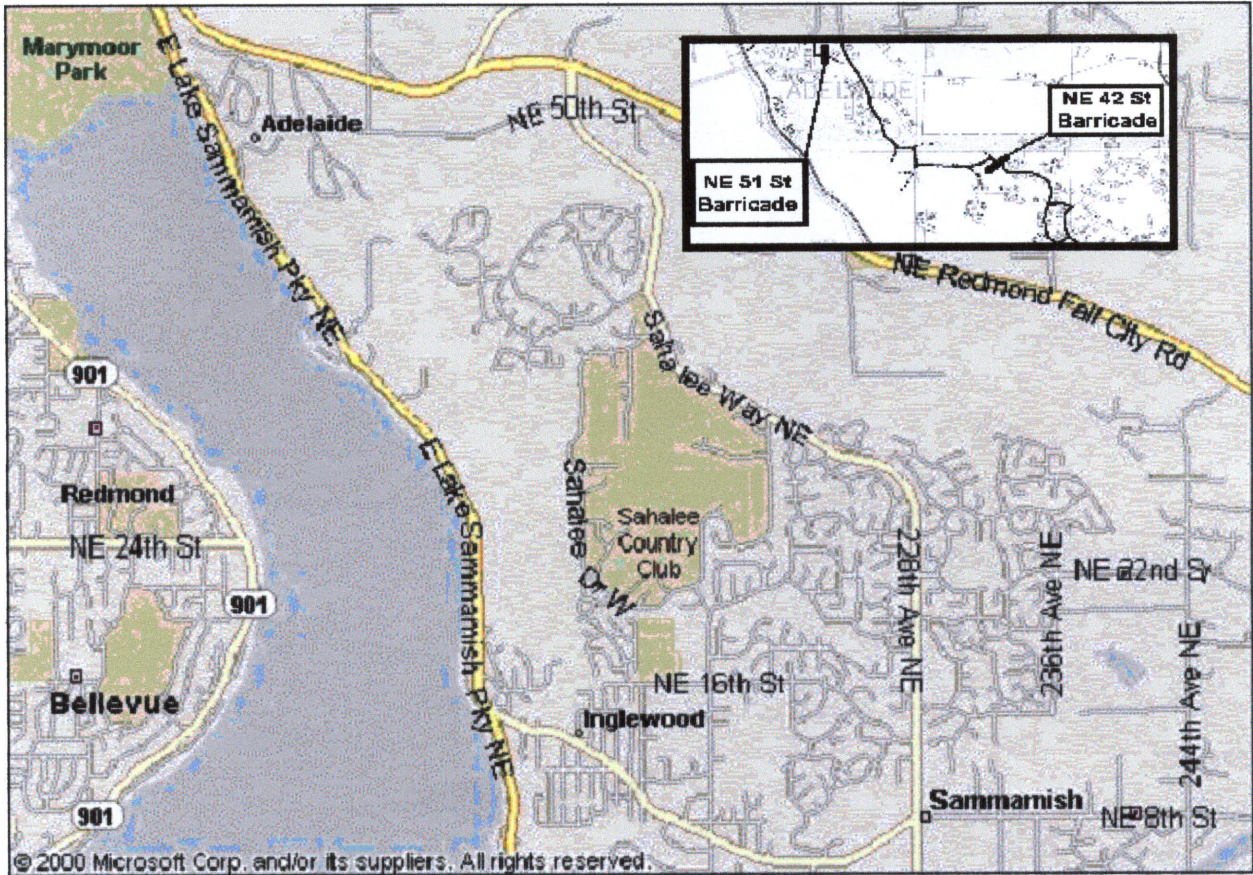


Figure 1 – Study Area

Traffic generated in the City of Sammamish north end uses East Lake Sammamish Parkway or Sahalee Way to connect with SR 202 for “north” trips and generally 228th Avenue for “south” trips. SR 202 connects with the regional highway system. The SR 202 intersections with East Lake Sammamish Park Way and Sahalee Way are operating at level-of-service F with long queues and delays. This congestion is expected to increase until SR 202 improvements are made. Some SR 202 capacity improvements were identified as subdivision approval traffic mitigations. Motorists may continue searching for alternatives to avoid the SR 202 intersection congestion resulting in higher volumes on the NE 42nd Street route or the NE 51st Street connection with barricade removal.

The northeast Area streets are access streets serving the adjacent residential development. Photos of the street segments in the Appendix C illustrate the curving characteristics – left and right horizontal curves and vertical up and down curves. The speed limit is 25 mph. The streets are not striped with yellow centerlines as used on arterials. Many of

the intersections are controlled by the yield requirements of rules of the road, not with stop or yield signs as on an arterial.



Figure 2 – NE 42nd Street – May 2003

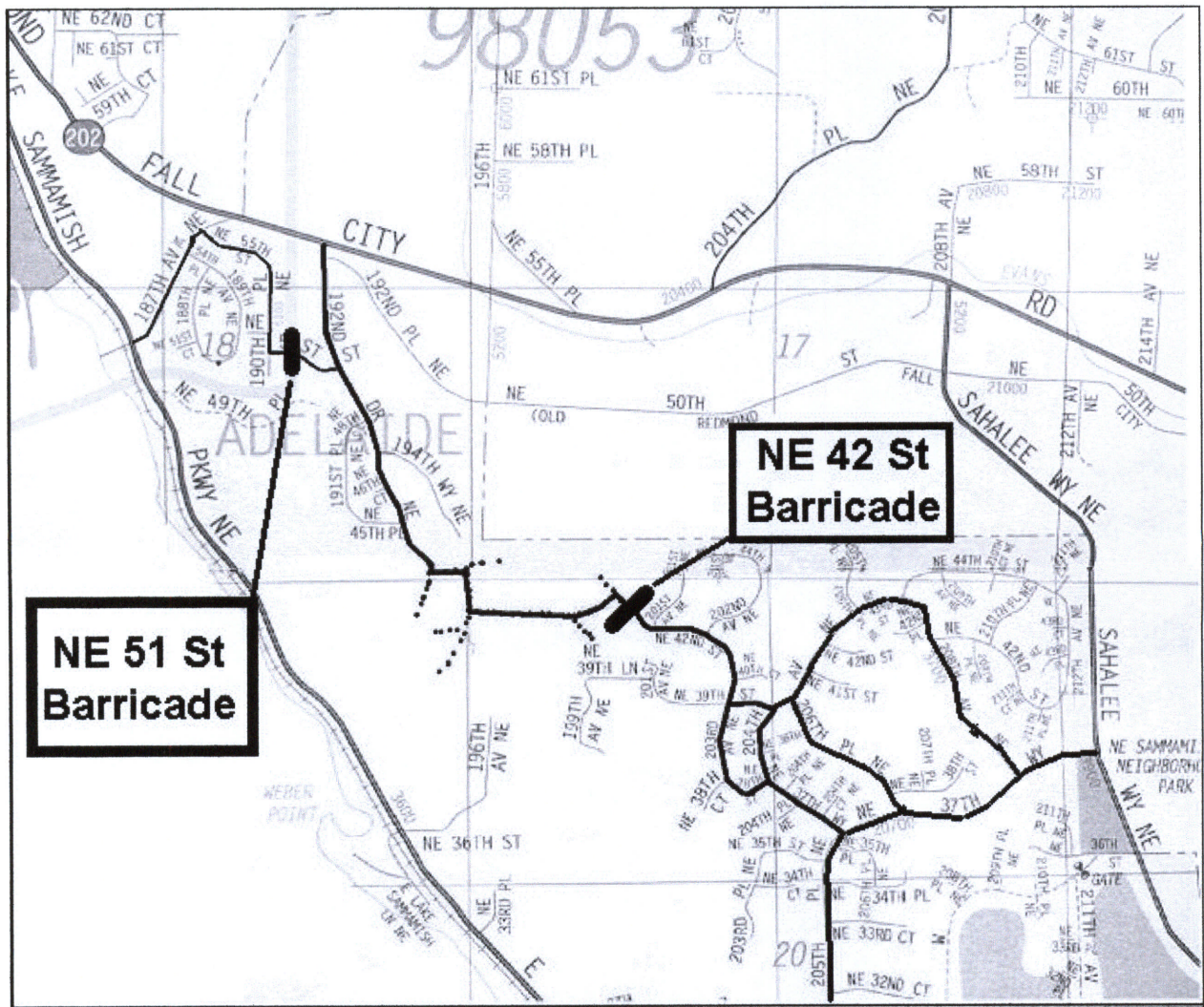
One barricade separates Chrysalis Estates and Timberline on NE 42nd Street and the second separates Hidden Ridge and Sammamish Park subdivisions on NE 51st Street.

The November 2001 report objective was to identify subdivision conditions, evaluate report findings, traffic counts were made to compare existing volumes with the 2003 projections, and provide summarization. A significant element of the previous work is the William Popp Associates TRAFFIC ROUTING ASSIGNMENT ANALYSIS for Old Mill Point in conjunction with Weber's Ridge & Chrysalis Estates, December 4, 1998. That work included modeling, travel time validations, traffic projections, weekday traffic generation study of the area, and traffic count information. The southern boundary of the modeling and projections was NE 16th Street.



Figure 3 – NE 51st Street Barricade – May 2003

The southern boundary was discussed with William Popp Senior and William Popp Junior in conducting the November 2001 Report evaluation. City of Sammamish traffic request experience indicated that the boundary for traffic using the barricaded NE 42nd Street route would extend south of Inglewood Hill Road if the NE 42nd Street barricade is removed. There was agreement that traffic boundary would extend south of NE 16th Street and that due to improvements not being made (SR 202 particularly), increased traffic growth and SR 202 congestion, that the 1998 forecasts for 2003 would be exceeded.

Barricade Study Area**Figure 4 – Barricade Vicinity Map**

Traffic generated south of the NE 42nd Street barricade uses Sahalee Way NE as the north-south arterial connection to SR 202 on the north, 228th Avenue Southeast to destinations on the south, and may travel south to Inglewood Hill Road using 216th Avenue Northeast. Traffic generated north of the NE 42nd Street barricade and south of the NE 51st Street barricade connects to SR 202 using 192nd Drive Northeast. Traffic that is generated north of the NE 51st Street barricade connects to 187th Avenue NE and either to SR 202 or East Lake Sammamish Parkway.

Traffic routes can be seen on the preceding map. The November 2001 Evaluation identified more than 1,000 homes in the subdivisions related to the area affected by the barricades. The traffic and pedestrian evaluation includes several links that are shown with heavier lines in Figure 2:

- 208th Avenue NE north of NE 37th Way,
- 206th Place NE north of NE 37th Way,
- NE 37th Way north of 205th Place Northeast,
- NE 39th Street west of 204th Avenue Northeast,
- 203rd Avenue NE west of 204th Avenue Northeast.

SECTION 2

NOVEMBER 2001 REPORT UPDATE

This section summarizes potential traffic impacts of removing or retaining the traffic barricades in the City of Sammamish northeast area determined from review of subdivision traffic analysis and October 2001 counts. It is an update of the November 2001 Preliminary Draft Report. Information relative to questions of the January 2002 Public Meeting and other subsequent questions are included.

Northeast area neighborhoods (subdivision areas) that have been studied are located south of SR 202 and between Sahalee Way and East Lake Sammamish Parkway. There are two barricades that prevent both cut-through traffic and neighborhood traffic circulation. One barricade separates Chrysallis Estates and Timberline (NE 42nd Street) and the second separates Hidden Ridge and Sammamish Park subdivisions (NE 51st Street). Decisions to retain, remove, or modify the barricades will involve neighborhood traffic concerns and congestion and accessibility of the overall northeast area. The area of Sammamish that is addressed in this report is bounded by:

- SR 202 on the north,
- Sahalee Way NE & 228th Avenue NE on the east,
- Inglewood Hill Road on the south, and
- East Lake Sammamish Park Way NE (ELSP) on the west:



Figure 5 – Barricades Study Area

Traffic generated in the north end of Sammamish uses East Lake Sammamish Parkway or Sahalee Way to connect with SR 202. SR 202 provides the connection with the regional highway system. SR 202 intersections with East Lake Sammamish Park Way and Sahalee Way are operating at level-of-service F with long queues and delays. This congestion is expected to increase until SR 202 improvements are made. Motorists will continue searching for alternatives to avoid the SR 202 intersection congestion. Level-of-service analysis using year 2000 turning movements from the City of Redmond showed the AM Peak Hour at SR 202 & East Lake Sammamish Park Way at "F" with more than 88 seconds average delay. The PM Peak was LOS "E" with 58 seconds average delay, 60 seconds is LOS "F." 1998 SR 202 and Sahalee Way volumes resulted in LOS "E" being calculated and newer volumes were not available.

Subdivision conditions and traffic reports have been reviewed in preparing this report. The traffic information pertaining to the 37th-39th-42nd route that connects NE 37th Way and the 192nd Drive NE/SR 202 intersection included plat conditions and the December 1998 William Popp Associates Traffic Report. Similar information for the 51st Avenue NE connection of Hidden Ridge and Sammamish Park has been reviewed. The

37th Way-NE 42 Street route. Removing the NE 51st Street barricade could result in East Lake Sammamish Parkway traffic cutting through to SR 202 to avoid queues extending south from SR 202. Leaving the barricades results in additional vehicle-miles-of-travel as neighborhood traffic is forced to detour around the barricades.

NE 42 STREET BARRICADE



Figure 7 – NE 42nd Street Barricade – February 2001.

Neighborhood concerns of appearance and vandalism were a concern of the wooden barricades, which were subsequently replaced. Vandalism had occurred to allow vehicles to pass the barricades. Vandalism results in maintenance work, unsightliness of the vandalism damages, and is a nuisance irritation to neighbors.

Chrysalis Estates-Weber Ridge-Old Mill Point subdivision approval addressed traffic concerns with mitigation conditions. Both Hidden Ridge and Timberline subdivisions opposed the 37th-39th-42nd route connection on the grounds that the SR 202/Sahalee Way intersection congestion would result in traffic diverting through the neighborhoods. The

Examiner conditions required a traffic calming plan that has been designed, approved by King County, and installed. A temporary barricade required in the Examiner's conditions is noted on each of the approved plats of Chrysalis Estates, Weber's Ridge, and Old Mill Point. The barricade is required until a traffic signal at the SR 202/192nd Drive NE intersection is operational as approved by WSDOT. Annual traffic monitoring for five years along the neighborhood collector route is an Examiner condition. Implementation of further traffic control modifications is required if 2,000 ADT is exceeded at any point west of the intersection of NE 37th Way and 205th Place NE.

The 37th-39th-42nd route that links NE 37th Way with 192nd Drive NE provides an alternative circuitous route to East Lake Sammamish Parkway (ELSP) and/or Sahalee Way Northeast-SR 202 if the barricade is removed. The 37th-39th-42nd route serves three trip purposes:

1. neighborhood trips **to and from** SR 202 to the north and NE 16th Street to the south,
2. circulation for residents **within** the neighborhoods (1,143 total lots):

Old Mill Point	(76 lots)	Hidden Ridge	(90 lots)
Chrysalis Estates	(16 lots)	Sterlingwood	(62 lots)
Weber's Ridge	(28 lots)	Timberline	(532 lots)
Timberline Ridge	(240 lots)	Shannonwood	(99 lots),
3. Access **through** the area between SR 202 and neighborhoods south of the barricade.

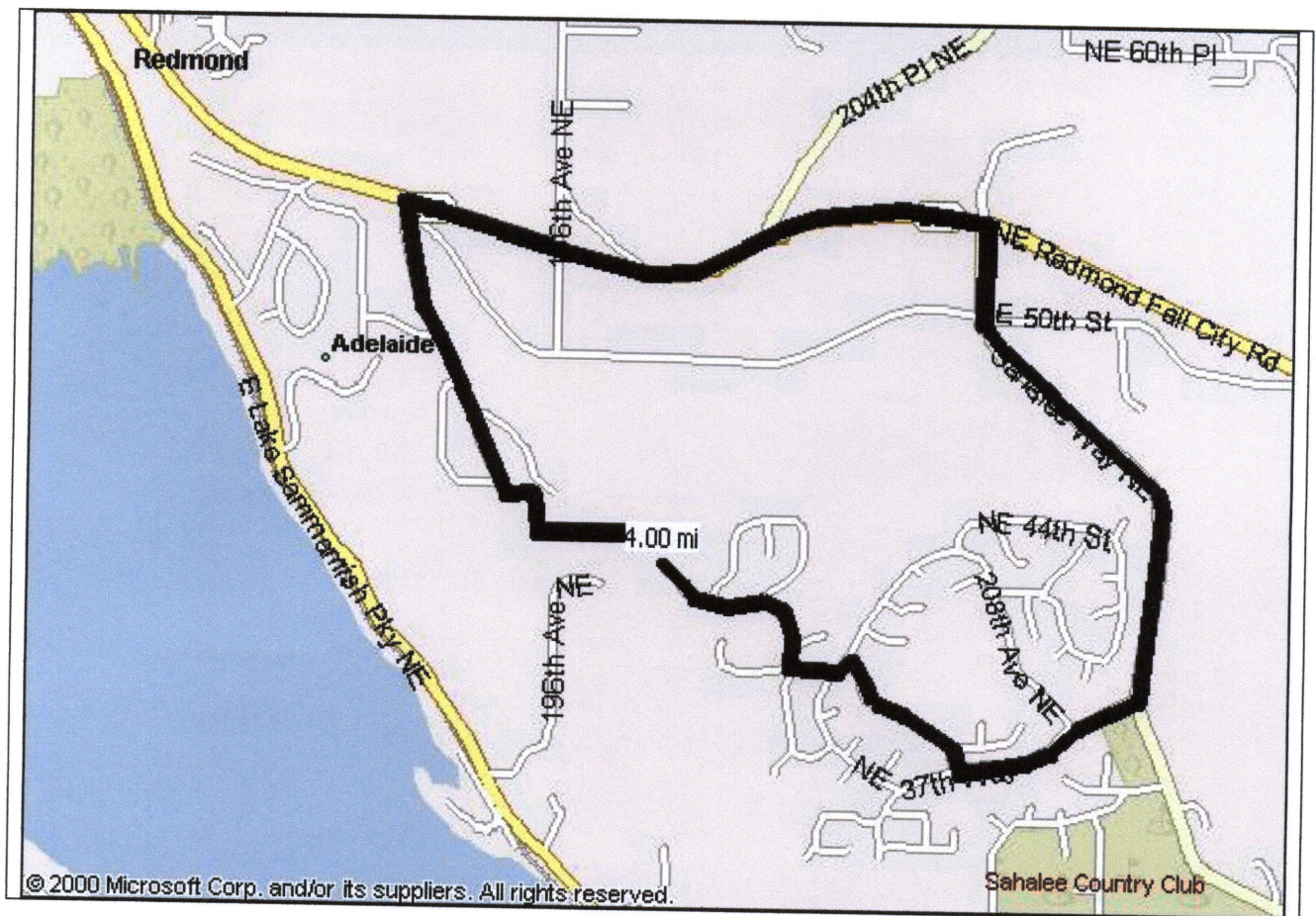


Figure 8 – Route to Travel Around the NE 42nd Street Barricade

While the barricades prohibit through traffic, they increase vehicle-miles-of-travel resulting from circuitous routes to travel around the barricades. A within the neighborhood trip between Chrysalis Estates and Timberline is 4 (four) miles illustrated with the preceding map. To visit someone could be a 4-mile trip to there, and 4 miles back, or 8 total miles. It takes two complete trips to drop off and to pick up someone (16 miles). This also adds four more vehicles to the LOS deterioration at each of the SR 202/192nd, SR 202/204th, SR 202/Sahalee Way, and Sahalee Way/NE 37th Way traffic signals.

An example of a to and from home circuitous trip is having to go south from Timberline to NE 37th Way, north on Sahalee Way, and west on SR 202 back past 192nd Drive to go northwest toward Redmond. A comparable southward trip example is going north from Chrysalis Estates to 192nd Drive, east on SR 202, south on Sahalee Way, and west on NE 37th Way to Blackwood school or south on 228th to the retail area instead of the short distance to NE 37th Way.